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ART 2A 30/07

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increasing the sizes of the cross-section of the end elongated element, the inner core necessarily tends to become stiffer, in this way compromising the correct wearability of the jewel which cannot be able to follow softly the body shapes. For example, in case of a choker, the resulting necklace tends to remain lifted with respect to the neck or breast.

For the elongated elements of the "omega" type which provide a covering of the spiral-wound type, a production method is known to the state of art consisting in winding the covering itself about a steel plug which is extracted at the end of the production process, thus obtaining an end elongated element constituted by a hollow helix. In order to prevent such spiral from lengthening under traction, a so-called "kern" is then inserted inside thereof which is welded at the longitudinal ends of the helix itself. Such kern may consist for example in a wire or a chain. Nevertheless, such kern is absolutely not suitable to confer to the end product an adequate resistance to bending or twisting. This translates into a possible disalignment of the helix turns which irremediably penalizes the jewel aesthetic aspect.

The technical problem underlying the present invention is then to provide a method for the production of elongated elements, in particular of the "omega" type, which allows obviating to the drawbacks mentioned above by referring to the known art and in particular which allows obtaining an optimum compromise between weight of the end manufactured article and the mechanical resistance thereof.

Such problem is solved by a method for the production of elongated elements according to claim 1.

The present invention relates to elongated elements of any metal, precious or not, suitable for making jewels, such as for example gold, silver, platinum, steel, titanium and so on.

The present invention has some important advantages. The main advantage lies in that the inner core longitudinally fastened to the outer covering provides stability and bending and twisting mechanical resistance to the elongated element even without requiring it to extend to fill-in the whole cross-section of the latter. This allows obtaining then an end elongated element, which, outer sizes being the same, results less heavy, less expensive and has a better and more comfortable wearability. On the other hand, it is possible to make, more easily with respect to the methods of known art, also very wide elongated elements which result mechanically stable.

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Claims

1. A method for the production of elongated elements (1; 9; 13; 15) for making jewels, comprising the steps of:
 - 5 (a) providing a longitudinally hollow covering (2; 10) of the elongated element;
 - (b) providing an inner core (3; 7; 111, 112) of the elongated element, placed inside said covering (2; 10) and extending at least in correspondence of transversally-opposite longitudinal edges (23, 24) of the covering itself (2; 10); and
 - 10 (c) subjecting the structure formed by said covering (2; 10) and by said core (3; 7; 111, 112) to a pressing carried out at said longitudinal edges (23, 24) of said covering (2; 10) and such as to make said inner core (3; 7; 111, 112) fixed with said covering (2; 10) at such longitudinal edges (23, 24).
- 15 2. The method according to claim 1, wherein the relative dimensions of said core (3; 7; 111, 112) and of said covering (2; 10) are such that a lightening compartment (100; 900; 130) remains defined therebetween after said pressing step.
- 20 3. The method according to the preceding claim, wherein said compartment (100; 900; 130) is apt to allow setting a stone (17) through said covering (2; 10).
- 25 4. The method according to claim 2 or 3, wherein said core (3) extends crosswise between said opposed longitudinal edges (23, 24) of said covering (2) and wherein from each part of said core (3) a lightening compartment remains defined after said pressing step (100).
5. The method according to the preceding claim, wherein each of said compartments (100) is apt to allow setting a stone (17).
- 30 6. The method according to any of the preceding claims, wherein said covering (2; 10) comprises an elongated body substantially helically wound about said core (3; 7; 111, 112).
7. The method according to any of the preceding claims, wherein said covering (2; 10) comprises a plurality of adjacent rings inserted on said core (3; 7; 111, 112).
- 35 8. The method according to the preceding claim, comprising, after said pressing step, a step of replacing at least one of said rings with an

ornamental member (14; 18).

9. The method according to the preceding claim, wherein said ornamental member (14) carries a set stone (17).
10. The method according to claim 8 or 9, wherein said ornamental member 5 consists in a shaped stone (18).
11. The method according to any of the preceding claims, wherein said covering (2), before said pressing step, has a substantially elliptical cross section.
12. The method according to any of the claims 1 to 10, wherein said covering 10 (10), before said pressing step, has a substantially rectangular-shaped cross section with rounded angles.
13. The method according to any of the preceding claims, wherein said covering (2; 10) has a substantially convex cross section.
14. The method according to any of the preceding claims, wherein said covering 15 (2; 10) has two opposite faces (21, 22; 101, 102) and said method comprises a step wherein said faces (21, 22; 101, 102) are machined differently one with respect to the other.
15. The method according to any of the preceding claims, wherein said covering (2) has two opposite faces (21, 22; 101, 102) and said method comprises a step wherein said faces (21, 22; 101, 102) are made of 20 and/or coated with precious metals of different kinds.
16. The method according to any of the preceding claims, wherein said core (3) has a cross dimension (5) substantially equal or comparable to the inner cross dimension of said hollow covering (2; 10) corresponding to the distance between said crosswise-opposed longitudinal edges (23, 24).
17. The method according to the preceding claim, wherein said core (3) is substantially flat.
18. The method according to the preceding claim, wherein said core 30 comprises a foil (19).
19. The method according to any of the preceding claims, wherein said core comprises a perforated element (20).
20. The method according to any of the preceding claims, wherein said core comprises at least a mesh structure with interlaced wires (3; 7; 111, 112).

21. The method according to any of the preceding claims, wherein said core is made of two parts (71, 72; 111, 112) each arranged at one of said longitudinal edges (23, 24) of said covering (2; 10).
22. The method according to the preceding claim, wherein each of said parts is a filiform element (71, 72).
23. The method according to claim 21, wherein each of said parts (71, 72) is under the form of strip.
24. The method according to any of the preceding claims, wherein said core comprises a first portion (6; 8; 12) soluble in a respective solvent and a second portion (3; 7; 111, 112) insoluble in said solvent, which second portion (3; 7; 111, 112) is made fixed to said covering (2; 10) in said pressing step and wherein the method provides a step of eliminating said first soluble portion (6; 8; 12) subsequently to said pressing step.
25. The method according to the preceding claim, wherein said first soluble portion (6) is made of two parts (61, 62).
26. The method according to the preceding claim, wherein said two parts (61, 62) of said first soluble portion (6) are placed on opposite sides of said second portion (3) according to a substantially sandwich-like configuration.
27. Method according to any of the claims 24 to 26, wherein said second portion of said core is made of two parts (71, 72; 111, 112).
28. The method according to the preceding claim, wherein said two parts (71, 72; 111, 112) of said second portion are placed each at one of said opposite longitudinal edges (23, 24) of said covering (2; 10) and wherein said first soluble portion (8; 12) is placed between said two parts (71, 72; 111, 112) of said second portion.
29. The method according to the preceding claim, wherein said first soluble portion (8) of said core supports said two parts (71, 72) of said second portion (7) so as to keep them adhering to said longitudinal opposed edges (23, 24) of said covering (2) during said pressing step.
30. The method according to any of the claims 24 to 29, wherein said first soluble portion (6; 8; 12) of said core is made of a material chosen in a group comprising brass, copper and tombac alloy and said solvent comprises nitric acid.
31. The method according to any of the claims 24 to 30, wherein said first

soluble portion (6; 8; 12) of said core comprises aluminium and said solvent comprises caustic soda.

32. The method according to any of the claims 24 to 31, wherein said first soluble portion (6; 8; 12) of said core comprises mild steel and said solvent comprises chloridric acid.
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33. The method according to any of the claims 24 to 32, wherein said first soluble portion (6; 8; 12) of said core comprises a polymeric material and said solvent is a solution liquid.
34. The method according to any of the preceding claims, wherein said 10 pressing step is apt to produce the clinching of said core (3; 7; 111, 112) between said opposite longitudinal edges (23, 24) of said covering (2; 10).
35. The method according to any of the preceding claims, wherein said 15 pressing step comprises, in turn, a molding or rolling step.
36. The method according to any of the preceding claims, wherein said 20 pressing step is apt to confer to said covering (2; 10) a substantially almond-like shaped cross section.
37. The method according to any of the preceding claims, wherein said 25 pressing step is apt to confer a substantial deformation to said core (111, 112) at said opposite longitudinal edges (23, 24) of said covering (10).
38. The method according to any of the preceding claims, comprising an additional step of setting a stone (17) in said covering (2; 10) subsequently to said pressing step.
39. The method according to any of the preceding claims, comprising a step 30 of inserting, after said pressing step, an ornamental member (14; 18) onto the elongated element (1; 9; 13; 15).
40. The method according to any of the preceding claims, which provides making a double-face final elongated element (1; 9; 13; 15).
41. The method according to any of the preceding claims, which provides 35 making a final elongated element of "omega" type (1; 9; 13; 15).